

## I. DEPARTMENT/AGENCY LSU Health Sciences Center

## II. PROJECT TITLE

### LOUISIANA PATIENT IDENTIFICATION (BIOMETRICS) AND TRACKING (BARCODING) PROJECT

## III. PROJECT LEADER

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## IV. DESCRIPTION OF THE PROJECT

The development and implementation of technology enhancements and innovations are at the center of the LSU Health Sciences Center's strategic plan to fundamentally reform the Public Hospital System. Over the next several years, LSU Health Sciences Center will be designing, developing and implementing components of a clinical information system directed at enhancing the delivery of crucial medical information to the point of care; aggregating data for medical research, outcomes measurement, and continuous quality improvement; and integrating with administrative systems to maximize eligibility checking, billing, and other functions. In order for this approach to succeed, data must be accurate, complete and securely protected from internal and external threats. With clinical information "online," it is imperative that we provide a security solution that will protect patient information at the user and workstation levels. Additionally, the use of health data is centered on the individual patients that we care for, and therefore, authenticating the identity of our patients is also a critical component of the security model. The ability to authenticate patient identities will also increase our ability to verify eligibility status for services.

### Proposal

The LSU Health Sciences Center has been awarded an \$862,000 grant from the Louisiana Technology Innovations Fund to implement a biometric identification system for patient authentication, clinician user authentication, workstation security and a barcode inpatient tracking system. Patients will be enrolled using a special digital scan of the fingertip that will immediately converted to a twelve-digit number entered into a master patient identification database. Patients' identities will be verified at future visits with the same biometric identification devices used for enrollment. This will eliminate problems of

similar or same names, unknown identity (unconscious, altered mental status), and falsification of identity, assuring the clinical user that they are accessing the correct patient information, such as medication allergies or past medical history. The LSU Health Sciences Center will utilize the same biometric technology to restrict access to electronic health information. All clinicians in the Public Hospital System will use a biometric password for logging on to a clinical workstation. This system prevents theft or "lending" of passwords as each individual clinician must logon using his / her personal identifiable characteristic (fingertip scan). This project will significantly enhance our ability to protect the confidentiality and privacy of our patients, and serve as a foundation for compliance with upcoming the Health Insurance Portability and Accountability Act regulations.

The LSU Health Sciences Center will also implement an inpatient patient tracking and data collection system using barcode technology. Patient bracelets with barcodes will allow for quick scans to document patient departure and arrival in different areas of the hospital, thus improving census and bed status information. Barcode scanner-enabled devices will also be programmed to enter vital signs, thus providing an inexpensive, portable, and proven solution to capturing clinical information. This information can then be entered into the patient's electronic record in a seamless manner.

## V. PROJECT STATUS

### A. Brief Summary

LSU Health Sciences Center has continued working with the previously identified vendor, Integrated Visions, toward the design and development of a biometric approach for patient identification and workstation security. During the past 6 months, Integrated Visions has developed a new and improved technology solution for biometric identification. Consequently, the vendor is no longer selling the version of the product that LSU had previously been evaluating and developing. Events of this type are not uncommon in the computing technology world, especially when dealing with cutting edge technologies that are continuously evolving under the pressures of new paradigms, such as the Internet. Although the time delay has been disappointing, the vendor's new Internet-based strategy, which is highly scaleable and considerably simpler to manage and support, will serve to our great advantage. The vendor has visited with us on site, at LSUHSC, several times to introduce the new product, and review its technical and functional specifications. We are planning in the near future to enter into new negotiations with the vendor to establish the pricing model and delineate the scope of a pilot project for the new product.

Consistent with previously outlined plans, we will, after a contractual agreement is reached with the vendor, be working on implementing the workstation security component before the patient identification component. Before asking patients to provide us with their digital fingerprints, we believe it is critical that our clinicians utilize the technology first, establish a proof-of-concept and serve as champions for protecting the

privacy of medical records by this methodology. We do not want to ask our patients participate in a process that we are not willing to do first ourselves.

Ongoing discussions with the vendor have been worked on by a team consisting of the Integrated Visions personnel and the most senior IT staff at LSUHSC: Bart Ponze, Director Enterprise Services, Greg Speyer, Director of IT for the Health Care Services Division, Richard Ferrans, Chief of Medical Informatics and Telemedicine, and Wayne Wilbright, Assistant Professor, Medical Informatics and Telemedicine.

With respect to barcode tracking, several Windows CE handheld devices and small barcode scanners have been purchased for testing the appropriateness of the units for use in patient tracking and vital sign entry applications. Several of the devices have been found to be impractical for the application due to ergonomic and display characteristics.

#### B. Accomplishments

- ?? Identification of a new vendor product with improved functional and technical specifications for biometric identification
- ?? Meetings with clinical user group to discuss their perceptions and needs regarding workstation security and single-sign-on model

#### C. Problems Encountered/Action Taken or Planned

- ?? Change in biometrics product vendor specifications / Identification of and knowledge acquisition about the new vendor product specifications and establishment of a plan to restart negotiations for contractual agreement and pilot project
- ?? Resignation of project leader. Dr. Richard Ferrans resigned from LSU Health Sciences Center on 2/29/00. / Identification of new project leader. Dr Wayne Wilbright has accepted the position of Chief of Section for Medical Informatics and will serve as the project leader for Louisiana Patient Identification and Tracking Project

#### D. Major Milestones (Original vs. Current Estimate)

With the identification of the new vendor product residing on a new platform and having different technical specifications, we feel it is prudent to re-establish the baseline as of March 2000 for estimating time to completion of the major milestones.

- ?? Clinical workstation biometric security pilot: 3 - 9 months
- ?? Clinical workstation biometric security implementation: 9 - 18 months
- ?? Biometric registration pilot: 12 - 18 months
- ?? Biometric registration implementation: 18 - 24 months
- ?? Bar Code pilot for patient tracking: 12 -18 months

## VI. COST VS. BUDGET

<u>Category</u>	<u>Budgeted</u>	<u>Actual</u>	<u>Projected Surplus</u>
A. Equipment	651,000	651,000	0
B. Software	212,000	212,000	0
C. Telecommunications	0	0	0
D. Professional/Contract Services	0	0	0
E. Other Costs	0	0	0
	=====	=====	=====
Total Project Cost	863,000	863,000	0

## VII. ITEMIZED EXPENSES AND FINANCIAL OBLIGATIONS INCURRED DURING THIS REPORTING PERIOD

No expenses or financial obligations were incurred during this reporting period.